2-1250 Waverley Street
Winnipeg, Manitoba, Canada R3T 6C6
Phone: 204-487-7412
Fax: 204-488-9823

Medicure Files Application for New AGGRASTAT® Product Format

Expects to Launch Bolus Vial in Q3 2016

WINNIPEG, CANADA – (May 11, 2016) Medicure Inc. ("**Medicure**" or the "**Company**") (TSXV:MPH, OTC:MCUJF), a specialty pharmaceutical company, is pleased to announce that it has submitted an application to the U.S. Food and Drug Administration (FDA) for the introduction of a new "bolus vial" product format for AGGRASTAT (tirofiban HCl).

The new product format is a concentrated, pre-mixed, 15 ml vial containing sufficient drug to administer the FDA approved, high dose bolus (HDB) of 25 mcg/kg at the beginning of treatment. AGGRASTAT is currently only sold in a pre-mixed intravenous bag format that comes in two sizes, 100 ml and 250 ml. The existing, pre-mixed products will continue to be available, providing a convenient concentration for administering the post-HDB maintenance infusion of 0.15 mcg/kg/min. (Approved Dosing: Administer intravenously 25 mcg/kg within 5 minutes and then 0.15 mcg/kg/min for up to 18 hours.)

"Our decision to pursue the new bolus vial format is in response to feedback we have received from hospitals considering a switch to AGGRASTAT," stated Dr. Albert Friesen, Chief Executive Officer and President at Medicure Inc. "If the application is approved, we anticipate the launch of the new product format in Q3 2016, and we expect that this investment in our brand will make a significant contribution as we seek to further expand use of AGGRASTAT across the United States."

Although the current bag format can be used to deliver the HDB as well as the maintenance infusion, some physicians and hospital catheterization labs prefer to administer the initial bolus dose with a smaller volume of drug product. Moreover, the availability of a ready-to-use bolus vial will provide greater operational similarities and efficiencies for hospitals transitioning to AGGRASTAT.

As is the case with the existing bag format, the new AGGRASTAT bolus vial does not require refrigeration and has a relatively neutral acidity (pH 5.5 – 6.5).

Development costs, and the cost of the initial commercial inventory, of the new bolus vial were substantially incurred in 2015.

The launch of the new product format is dependent upon approval by the FDA. Expected FDA review time is four (4) months.

About Medicure Inc.

Medicure is a specialty pharmaceutical company focused on the development and commercialization of therapeutics for the U.S. hospital market. The primary focus of the Company

and its subsidiaries is the marketing and distribution of AGGRASTAT (tirofiban HCl) for non-ST elevation acute coronary syndrome in the United States, where it is sold through the Company's U.S. subsidiary, Medicure Pharma, Inc. For more information on Medicure please visit www.medicure.com.

About AGGRASTAT

Indications and Usage
AGGRASTAT is indicated to reduce the rate of thrombotic cardiovascular events (combined endpoint of death, myocardial infarction, or refractory ischemia/repeat cardiac procedure) in patients with non-ST elevation acute coronary syndrome (NSTE-ACS).

Dosage and Administration
Administer intravenously 25 mcg/kg within 5 minutes and then 0.15 mcg/kg/min for up to 18 hours. In patients with creatinine clearance ≤60 mL/min, give 25 mcg/kg within 5 minutes and then 0.075 mcg/kg/min.

Clinical Experience
In clinical studies with the HDB regimen, AGGRASTAT was administered in combination with aspirin, clopidogrel and heparin or bivalirudin to over 8,000 patients for typically ≤24 hours.

Contraindications
Known hypersensitivity to any component of AGGRASTAT, history of thrombocytopenia with prior exposure to AGGRASTAT, active internal bleeding, or history of bleeding diathesis, major surgical procedure or severe physical trauma within previous month.

Warnings and Precautions
Aggrastat can cause serious bleeding. If bleeding cannot be controlled discontinue AGGRASTAT. Thrombocytopenia: Discontinue AGGRASTAT and heparin.

Adverse Reactions
Bleeding is the most commonly reported adverse reaction.

For more information on AGGRASTAT, please refer to Full Prescribing Information.

For more information, please contact:

James Kinley
Chief Financial Officer
Tel. 888-435-2220
Fax 204-488-9823
E-mail: info@medicure.com
www.medicure.com

Forward Looking Information: Statements contained in this press release that are not statements of historical fact, including, without limitation, statements containing the words "believes", "may", "plans", "will", "estimates", "continues", "anticipates", "intends", "expects" and similar expressions, may constitute "forward-looking information" within the meaning of applicable Canadian and U.S. federal securities laws (such forward-looking information and forward-looking statements are hereinafter collectively referred to as

"forward-looking statements"). Forward-looking statements, including the potential for approval of the new bolus vial format, its expected launch date and its contribution to a further increase in sales, are based on the current assumptions, estimates, analysis and opinions of management of the Company made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors which the Company believes to be relevant and reasonable in the circumstances. Inherent in forward-looking statements are known and unknown risks, uncertainties and other factors beyond the Company's ability to predict or control that may cause the actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements, and as such, readers are cautioned not to place undue reliance on forward-looking statements. Such risk factors include, among others, the Company's future product revenues, stage of development, additional capital requirements, risks associated with the completion and timing of clinical trials and obtaining regulatory approval to market the Company's products, the ability to protect its intellectual property, dependence upon collaborative partners, changes in government regulation or regulatory approval processes, and rapid technological change in the industry. Such statements are based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions about: general business and economic conditions; the impact of changes in Canadian-US dollar and other foreign exchange rates on the Company's revenues, costs and results; the timing of the receipt of regulatory and governmental approvals for the Company's research and development projects; the availability of financing for the Company's commercial operations and/or research and development projects, or the availability of financing on reasonable terms; results of current and future clinical trials; the uncertainties associated with the acceptance and demand for new products and market competition. The foregoing list of important factors and assumptions is not exhaustive. The Company undertakes no obligation to update publicly or otherwise revise any forward-looking statements or the foregoing list of factors, other than as may be required by applicable legislation. Additional discussion regarding the risks and uncertainties relating to the Company and its business can be found in the Company's other filings with the applicable Canadian securities regulatory authorities or the US Securities and Exchange Commission, and in the "Risk Factors" section of its Form 20F for the fiscal year ended December 31, 2015.